

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph [0012] of the specification by replacing it with the following amended paragraph:

[0012]

In view of the above, the present inventor has made various experiments and, as a result, found that the electrode temperature can be kept constant by controlling the lamp current and, thus, the flickering can be moderated.

That is, in a case where the temperature difference is caused between the electrodes when a current is supplied under the same conditions between the electrodes, it has been found that a lamp current may be supplied to an electrode on a lower temperature such that the electrode functions as the anode for longer time and further that different optimal values are present for the ratio of time depending on the type of the high pressure discharge lamp respectively and the optimal values are equal so long as the type of high pressure discharge lamps is identical.

Please amend paragraph [0036] of the specification by replacing it with the following amended paragraph:

[0036]

Further, the synthesizer 14 is connected to the PWM control circuit 17 by way of a current controller 23 for setting the current values of the standard period current I_B and the short period current I_H .

The current adjuster 23 has a standard current setter 24 for normally outputting a normal current setting signal in accordance with the current value for the standard period current I_B of the lamp current I_L , and an overcurrent setter 25 for outputting an overcurrent setting signal in accordance with the current value of the short period current I_H set to 1.2 times or more and 5 times or less the standard period current I_B .

Further, it has a gate 26 for supplying, to the PWM control circuit 17, a current setting signal DS, that is, selectively passed normal current setting signal DS_1 or overcurrent setting signal DS_2 , outputted from each of the setters 24 and 25, and a gate controller 27 for controlling the gate 26.